

What is claimed is:

1. A method of manufacturing a semiconductor device,
comprising:

5 a step of forming an oxidation proof layer including
an aperture on a silicon substrate;

a step of forming a field oxide for a device
isolation thermally oxidizing silicon at the aperture;

10 a step of depositing a protective layer thicker than
a thickness of said oxidation proof layer on said
oxidation proof layer and on said field oxide, said
protective layer being composed of such a selective
removable material as to establish a condition under which
said oxidation proof layer is selectively removed;

15 a step of making said protective layer residual on
only the surface of said field oxide by removing a part of
said protective layer deposited in said depositing step
till the surface of the said oxidation proof layer is
exposed; and

20 a step of removing said oxidation proof layer.

2. A method of manufacturing a semiconductor device
according to claim 1, wherein said protective layer is
composed of polysilicon.

3. A method of manufacturing a semiconductor device according to claim 1 or 2, wherein said step of removing the part of said protective layer is a step of executing a polishing process based on CMP (Chemical Mechanical
5 Polishing).

4. A semiconductor device comprising:
a field oxide for a device isolation; and
a layer formed on the surface of said field oxide,
10 said layer being composed of such a selective removable material as to establish a condition under which a silicon nitride layer is selectively removed.

5. A semiconductor device according to claim 4,
15 wherein said selective removable material is polysilicon.